

Life on Mars May Have Been Its Own Worst Enemy

And they ominously hint that **life may be its own worst enemy on worlds throughout the cosmos.**

We might not yet have *proof* of life on early Mars. But some [discoveries](#) have provided tantalizing [clues](#) that Mars was quite capable of supporting primitive, microscopic life. On October 10, 2022, researchers [announced](#) a new study suggesting that – if primitive organisms did once live on Mars – there might have been a familiar-sounding twist to their evolution. They might initially have flourished, but then ended up causing their own extinction.

Evidence of past liquid water on the surface of Mars suggests that this world once had habitable conditions and leads to the question of life. If there was life on Mars, it would be interesting to determine if it represented a separate origin from life on Earth. To determine the biochemistry and genetics of life on Mars requires that we have access to an organism or the biological remains of one—possibly preserved in ancient permafrost.

Called methanogens, Mars's microbes would have inhaled atmospheric hydrogen and carbon dioxide and exhaled methane gas—and in a twist, they may have turned out to be their own worst enemy.

The new study supports previous ones, that early Mars would have been more hospitable for microorganisms than it is today. Scientists believe the planet once had a much thicker atmosphere than it does now. That atmosphere would have allowed more temperate conditions and liquid water on the surface. The subsurface, however, may have been an even better environment for microbes to thrive in.

According to this study, life on Mars might have brought about its own end by changing the composition of the atmosphere and making it too cold.